STUDENT FINANCIAL ASSISTANCE MODERNIZATION PARTNER

Appendix VI. MONTHLY MODERNIZATION PROGRAM SCORECARDS STATUS AS OF MARCH 31, 2001

MODERNIZATION PARTNER PROGRAM SUMMARY

		СГО			сю			Financial Partners Schools Channel					Organi Transfo	zational rmation				
	TO 25 - Electronic Document Management (EDM)	TO 35 - FMS Applications Operations	TO 45 - Financial Management System (FMS)	TO 12 - School Portal and IFAP Conversion	TO 34 - Intranet Operations	TO 43 - School Portal and IFAP Applications Management	TO 44 - Title IV/WAN IPT Support	TO 48 - Portal Strategy	TO 65- Electronic Master Promissory Note Project Support	TO 40 - FFEL System Retirement Analysis	TO 50 - Financial Partners Data Mart	TO 19 - Common Origination and Disbursement	TO 24 - Direct Loan eServicing	TO 26 - CDS Simplification	TO 37 - Financial Analysis Support and Buildup	TO 42- FAFSA on the Web Redesign	TO 29 - SFA University Mod Support	TO 31 - SFA University Front- to-Back
Page	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Overall	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Yellow	Green	Yellow	Green	Green
Scope	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Task Order	Yellow	Green	Green	Green	Yellow	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Green	Yellow
Schedule Performance Against Work Performed	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Green	Green	Yellow	Green	Green
Architecture	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Risk	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	Green	Green
Quality	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Communication / Change Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green
Human Resources	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Commercial Off the Shelf Software (COTS)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

The Monthly Scorecard Assessment Criteria is located on the last page of the packet.

Comments are not included for measures assessed as "Green" unless additional information needs to be communicated. Please see the Bi-Weekly Scorecard Assessment Criteria on the last page of this report for an explanation of the "Green" assessment criteria for each measure.

TO 25 - Electronic Document Management (EDM)

Planned Go Live Date: TBD ITR: Bill Walsleben SFA Contact: Cheryl Queen

Modernization Partner Contact: Bill Walsleben

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Green	Overall	Completed requirements gathering.
Green	Green	Scope	Efforts are underway in support of the following near term deliverables: - ERM Business Case due 4/30/01. - Imaging Vendor Selection Report due 4/15/01. - Document Imaging Strategy and Procedures due 5/01/01. - File Plan - V1 due 5/15/01. - SFA Record Control Schedule - V1 due 5/15/01.
Yellow	Yellow	Task Order	The Task Order is being updated to reflect the change in scope from an EDM system to an ERM system and is planned to be resubmitted to SFA for approval by 3/30/01.
Green	Green	Schedule Performance Against Work Performed	
Green	Green	Architecture	Development of Architecture recommendations will be part of the response to the revised SOO.
Green	Green	Risk	
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	OpenText has been recommended as the ERM product.

TO 35 - FMS Applications Operations

Go Live Date: FMS went live 10/01/00 ITR: Phill Thomas SFA Contact: Paul Stonner

Modernization Partner Contact: Tom Schweikert

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Green	Overall	The Operations team is progressing with tasks identified in the workplan.
Green	Green	Scope	
Green	Green	Task Order	
Green	Green	Schedule Performance Against Work Performed	
Green	Green	Architecture	
Green	Green	Risk	
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	Operating Oracle Financials COTS.

TO 45 - Financial Management System (FMS)

Go Live Date: 10/31/01 ITR: Bill Walsleben SFA Contact: Paul Stonner

Modernization Partner Contact: Francesca Keating

February 23 Assessment	March 31 Assessment	Measure	Comments
Yellow	Yellow	Overall	The issues described under the "Scope" measure provide the greatest risk to project success.
Yellow	Yellow	Scope	The scope for Phase III has been defined and requirements are being documented. Ongoing issues that may impact scope include: (1) CFO process re-engineering and transformation, (2) Completion of the Memorandum of Understanding for ED support.
Red	Green	Task Order	The Task Order was awarded on 3/30/01.
Yellow	Green	Schedule Performance Against Work Performed	Milestones based on the revised task order are on schedule.
Green	Green	Architecture	
Yellow	Yellow	Risk	Potential future risks to other Measures have been identified and assessed; impacts are minimal.
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	

TO 12 - School Portal & IFAP Conversion

Went Live: 3/7/01 ITR: David Marr

SFA Contact: Sandi Foy-McCabe/Paul Hill Jr. Modernization Partner Contact: Yateesh Katyal

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Green	Overall	All applications are currently in production. The applications were announced to the users at the Direct Loan Conference on 3/7/01. All deliverables have been submitted to SFA and have been accepted. The project is complete.
Green	Green	Scope	
Green	Green	Task Order	
Yellow	Green	Schedule Performance Against Work Performed	
Green	Green	Architecture	
Green	Green	Risk	
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	

TO 34 - Intranet Operations

Go Live Date: 12/08/00 ITR: Phill Thomas

SFA Contact: Karen Freeman / David Moore Modernization Partner Contact: Tom Schweikert

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Green	Overall	Funding for SFANet operations runs out on $3/31/01$. SFA CIO will be accountable for Intranet Operations as of $4/1/01$.
Green	Green	Scope	
Green	Yellow	Task Order	Task Order expires $3/31/01$. SFA has indicated a plan to outsource the operation of SFANet to another vendor of as of $4/1/01$.
Green	Green	Schedule Performance Against Work Performed	
Green	Green	Architecture	
Green	Yellow	Risk	SFA has awarded a contractor the Intranet Operations work as of 3/29/01. Mininal transition was accomplished with the Modernization Partner.
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	COTS is not applicable to this Task Order.

TO 43 - School Portal and IFAP Applications Management

Go Live Date: Application Went live 3/7/01
ITR: Phill Thomas
SFA Contact: Colleen Kennedy
Modernization Partner Contact: Tom Schweikert

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Green	Overall	The Operations and Transition team is progressing with tasks identified in the Task Order.
Green	Green	Scope	
Green	Green	Task Order	
Green	Green	Schedule Performance Against Work Performed	
Green	Green	Architecture	
Green	Green	Risk	
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	COTS is not applicable to this Task Order.

TO 44 - Title IV/WAN IPT Support

Planned Go Live Date: N/A ITR: Peter Elms SFA Contact: David Moore Modernization Partner Contact: Rick Simon

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Green	Overall	Reviewed and revised the Master Business Case. The Task Order is proceeding according to the revised schedule.
Green	Green	Scope	
Green	Green	Task Order	
Green	Green	Schedule Performance Against Work Performed	
Green	Green	Architecture	
Green	Green	Risk	
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	

TO 48 - Portal Strategy Phase I

Planned Go Live Date: N/A ITR: Pete Elms SFA Contact: Steve Allison

Modernization Partner Contact: Chris Paladino

February 23 Assessment	March 31 Assessment	Measure	Comments
		Overall	Deliverable 48.1.1- Portal Requirements and Strategy has been accepted. Deliverable 48.1.2- Portal
NA	Green		Product Evaluation and Recommendation has been submitted to SFA and comments have been
			provided to Modernization Partner. Final submission is scheduled for 3/28/01.
NA	Green	Scope	
NA	Green	Task Order	
DIA	0	Schedule Performance	
NA	Green	Against Work Performed	
NA	Green	Architecture	
NA	Green	Risk	
NA	Green	Quality	
DIA	0	Communication/Change	
NA	Green	Management	
NA	Green	Human Resources	
DIA	0	Commercial Off the Shelf	
NA	Green	Software (COTS)	

TO 48 did not report a Monthly Scorecard for the February 23 assessment.

TO 65 - Electronic Master Promissory Note (eMPN) Project Support

Planned Go Live Date: 07/02/01 ITR: Pete Elms

SFA Contact: Neil Sattler/Charlie Coleman Modernization Partner Contact: Yateesh Katyal

February 23 Assessment	March 31 Assessment	Measure	Comments
NA	Green	Overall	Modernization Partner is providing integration support for the eMPN/PIN Site initiative and specifically developing the security plan.
NA	Green	Scope	
NA	Yellow	Task Order	The Task Order has not been awarded. Modernization Partner has received an Authority to Proceed from SFA to provide integration support and the security assessment for the eMPN site.
NA	Yellow	Schedule Performance Against Work Performed	Modernization Partner has not reviewed the eMPN/PIN Site development plan from NCS. Communications are under way to review the development schedule for the system scheduled to be in production 7/2/01. The Modernization Partner is preparing an overall schedule that includes requirements, standards, development, testing, security assessment, and production readiness among other activities.
NA	Green	Architecture	
NA	Yellow	Risk	Lack of a development schedule (project plan for software application) may jeopardize our ability to meet the production schedule.
NA	Green	Quality	
NA	Green	Communication/Change Management	
NA	Green	Human Resources	
NA	Green	Commercial Off the Shelf Software (COTS)	

TO 65 did not report a Bi-Weekly Scorecard for the March 9 assessment.

TO 40- FFEL System Retirement Analysis

Planned Go Live Date: N/A ITR: Chris Ward SFA Contact: Johan Bos-Beijer

Modernization Partner Contact: Reginald Ewing

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Yellow	Overall	Deliverables 40.1.3- FFEL System Retirement Business Case and 40.1.4- FFEL De-conversion Plan,
Green			are scheduled to be delivered on $3/30/01$, but delivery will be delayed until $4/6/01$.
Green	Green	Scope	
Green	Green	Task Order	
Yellow	Yellow	Schedule Performance Against Work Performed	Deliverable 40.1.2 - FFEL System Analysis and Inventory originally submitted to SFA on 2/16/01 was re-submitted for approval on 3/22/01. Deliverables 40.1.3- FFEL System Retirement Business Case and 40.1.4- FFEL De-conversion Plan, are scheduled to be delivered on 3/30/01, but delivery will be delayed until 4/6/01. One reason for the delay is that SFA and Raytheon are unable to provide cost information required to complete the deliverable. The Modernization Partner team expects to estimate and review this cost information with SFA and Raytheon by 3/30/01, allowing for 4/6/01 delivery.
Green	Green	Architecture	
Green	Green	Risk	
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	COTS is not applicable to this Task Order.

TO 50- Financial Partners Data Mart

Planned Go Live Date: 5/21/01 ITR: Chris Ward SFA Contact: Anna Allen

Modernization Partner Contact: Nancy Krecklow

February 23 Assessment	March 31 Assessment	Measure	Comments
		Overall	The team plans to submit deliverable 50.1.1- Data Mart Design on 3/26/01. Development
Green	Green		environment was made available on $3/22/01$. The team is verifying that the environment and our
			IDs have the appropriate authorizations.
Green	Green	Scope	
Green	Green	Task Order	
		Schedule Performance	New requirements were identified during the week of 3/9/01, which required additional follow-up.
Yellow	Green	Against Work Performed	All requirements were finalized and the development and test environment was made available on
			3/22/01. The team is now achieving milestones on schedule.
Green	Green	Architecture	
Green	Green	Risk	
Green	Green	Quality	
Constant		Communication/Change	
Green	Green	Management	
Green	Green	Human Resources	
Conse	C	Commercial Off the Shelf	Informatica and MicroStrategy products will be implemented for the Data Mart. No application
Green	Green	Software (COTS)	COTS are currently planned.

TO 19 - Common Origination and Disbursement

Planned Go Live Date: 2/2002 ITR: David Marr

SFA Contact: Kay Jacks/Mary Haldane

Modernization Partner Contact: Katie Crowley, Gene Murphy

February 23 Assessment	March 31 Assessment	Measure	Comments	
Green	Yellow	Overall	Developing a Shared-In-Savings (SIS) proposal for COD. Currently working on Phase III- Requirements Definition and Implementation Planning.	
Green	Green	Scope		
Green	Yellow	Task Order	Developing SIS proposal for COD Technical Volume in review with SFA.	
Green	Yellow	Schedule Performance Against Work Performed Requirements Development process has been extended two weeks to fully incorporate all legal systems (LOS & RMS) into COD.		
Green	Green	Architecture		
Green	Green	Risk		
Green	Green	Quality		
Yellow	Yellow	Communication/Change Management SFA Title IV leadership and the COD management staff are working with the School to reduce the lag time between the publicity of COD activities and the actual imple		
Green	Green	Human Resources		
Green	Green	Commercial Off the Shelf Software (COTS)		

TO 24 - Direct Loan eServicing

Planned Go Live Date: 11/01 ITR: Martin Renwick SFA Contact: Sybil Phillips

Modernization Partner Contact: Gary Williams

February 23 Assessment	March 31 Assessment	Measure	Comments	
Green	Green	Overall	The project is on schedule to meet the Task Order requirements.	
Green	Green	Scope		
Green	Green	Task Order	Task Order is in the process of being extended through 4/2/01.	
Green	Green	Schedule Performance Against Work Performed		
Green	Green	Architecture		
Green	Green	Risk		
Green	Green	Quality		
Green	Green	Communication/Change Management		
Green	Green	Human Resources		
Green	Green		A COTS solution is planned. Selection process included within this phase of work for an Internet billing provider.	

TO 26 - CDS Simplification

Go Live Date: 11/17/00 ITR: Martin Renwick SFA Contact: Jennifer Douglas Modernization Partner Contact: Kerry Trahan

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Yellow	Overall	The team has been working to finalize the invoicing process since early February 2001. Met with Linda Paulsen (SFA Deputy CFO) and Candace Hardesty (CO) to identify remaining issues for certification of November 2001 savings calculation. Working to resolve final issues during the week of 3/30/01.
Green	Green	Scope	
Green	Green	Task Order	
Green	Green	Schedule Performance Against Work Performed	
Green	Green	Architecture	
Green	Green	Risk	
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS)	

TO 37 - Financial Analysis Support and Buildup

Planned Go Live Date: N/A ITR: Martin Renwick SFA Contact: Jennifer Douglas

Modernization Partner Contact: Louella Gorman

February 23 Assessment	March 31 Assessment	Measure	Comments	
Green	Green	Overall	The Project is proceeding as scheduled with no major issues. Currently waiting to receive approval of the modification to deliverable 37.1.6- Unit Cost for Free Application for Federal Student Aid	
dicen	Green		(FAFSA).	
Green	Green	Scope		
Green	Green	Task Order		
Constant	Green	Schedule Performance		
Green		Against Work Performed		
Green	Green	Architecture		
Green	Green	Risk		
Green	Green	Quality		
Green	Green	Communication/Change		
Green		Management		
Green	Green	Human Resources		
Green	Green	Commercial Off the Shelf	COTS is not applicable to this Task Order.	
		Software (COTS)		

TO 42- FAFSA on the Web Redesign

Planned Go Live Date: N/A ITR: Martin Renwick SFA Contact: Jeanne Saunders Modernization Partner Contact: Mark Raulin

February 23 Assessment	March 31 Assessment	Measure	Comments	
Yellow	Yellow	Overall	The FAFSA on the Web Redesign project is a week behind schedule. Testing was delayed due to an unexpected loss of connectivity to the VDC. Efforts are underway by the Modernization Partner to recover this loss of time. Migration plans are underway to establish a test environment for FAFSA on the Web at the VDC by $4/23/01$.	
Green	Green	Scope		
Yellow	Green	Task Order	The Modification to the Task Order proposal has been approved by SFA.	
Yellow	Yellow	Schedule Performance Against Work Performed	The project is a week behind schedule due to a delay in procuring the permanent renewal license of the Shadow Direct software by SFA. SFA obtained a temporary license to alleviate additional delays; this temporary license expires 4/5/01.	
Green	Green	Architecture		
Yellow	Yellow	Risk	There is a potential future risk of additional delays if the Shadow Direct license expires on $4/5/01$.	
Yellow	Green	Quality		
Green	Green	Communication/Change Management		
Green	Green	Human Resources		
Green	Green	Commercial Off the Shelf Software (COTS)		

TO 29 - SFA University Modernization Support

Planned Go Live Date: N/A ITR: Linh Nguyen SFA Contact: Anne Teresa

Modernization Partner Contact: Howard Weitzner

February 23 Assessment	March 31 Assessment	Measure	Comments
Green	Green	Overall	The project is on schedule. The Task Order is currently being modified.
Green	Green	Scope	
Green	Green	Task Order	The Task Order is currently being modified to reflect new requirements from SFA University.
Green	Green	Schedule Performance Against Work Performed	
Green	Green	Architecture	
Green	Green	Risk	
Green	Green	Quality	
Green	Green	Communication/Change Management	
Green	Green	Human Resources	
Green	Green	Commercial Off the Shelf Software (COTS) The team has identified potential Learning Management Solutions (LMS) to meet SFA learning management needs.	

TO 31- SFA University Front-to-Back

Planned Go Live Date: N/A ITR: Linh Nguyen SFA Contact: Anne Teresa

Modernization Partner Contact: Laura Miller

February 23 Assessment	March 31 Assessment	Measure	Comments	
Red	Green	Overall	A modification to the Task Order is in process and the team is on target to meet critical deadlines.	
Green	Green	Scope		
Red	Yellow	Task Order	The Task Order modification is expected to be signed by 4/5/01.	
Green	Green	Schedule Performance Against Work Performed	cheduled deliverables and due dates for TO- 31 SFA University Front-to-Back have been ed in the Task Order modification. The revised schedules have been agreed to by SFAU and e updated upon award of the modification.	
Green	Green	Architecture		
Green	Green	Risk		
Green	Green	Quality		
Green	Green	Communication/Change Management		
Green	Green	Human Resources		
Green	Green	Commercial Off the Shelf Software (COTS)	COTS is not applicable to this Task Order.	

Scorecard Assessment Criteria

Scorecard Measure/Assessment			Red
Overall	The Overall Assessment is at the discretion of the individuals completing the scorecard No quantitative guidelines (e.g. 2 Yellows = Overall Yellow) have been issued due to the different nature of each project	 The Overall Assessment is at the discretion of the individuals completing the scorecard No quantitative guidelines (e.g. 2 Yellows = Overall Yellow) have been issued due to the different nature of each project 	The Overall Assessment is at the discretion of the individuals completing the scorecard No quantitative guidelines (e.g. 2 Yellows = Overall Yellow) have been issued due to the different nature of each project
Scope	The scope has been defined, requirements are documented and authorized by the SFA and Modernization Partner Formal change control process has been implemented and is maintaining control	 The scope has been defined and requirements have been documented and authorized by the SFA and Modernization Partner Material scope issues have not been resolved and/or formal change control process has not been implemented 	The scope of the Task Order has not been defined and/or requirements are not documented and authorized by the SFA and Modernization Partner Unforeseen scope growth will impact the schedule baseline Change control process has not been implemented or is not maintaining control
Task Order	Task Order has been accepted on time per the contract	Task Order has not been awarded but ATP has been issued	No Task Order has been awarded No ATP has been issued
Schedule Performance Against Work Performed	Project is achieving milestones on schedule or ahead of schedule	Project may not be meeting milestones, but a catch-up plan has been developed that is accurately reflected in the workplan	Project is not meeting milestones and no catch-up plan has been developed or reflected in the workplan
Architecture	The Project is in full compliance with Modernization Blueprint baseline or target architecture standards or An approved change request for all deviations from the approved architecture exists	 The Project is deviating from Modernization Blueprint baseline or target architecture standards or A change request has been submitted but the request has not been approved 	The Project is deviating from Modernization Blueprint baseline or target architecture standards or A change request has not been submitted and obtained
Risk	Potential future risks have been identified and assessed; no impact is expected to the other Measures Project risks (if any) to successfully execute the Task Order have been identified, documented and prioritized Risk mitigation strategies are in place	 Potential future risks to other Measures have been identified and assessed; impacts are minimal Project risks to successfully execute the Task Order have been documented, but either: Some risks have not been adequately defined or Mitigation strategies have not been developed for all risks 	Potential future risks to other Measures have been identified and assessed; impacts are significant Project risks to successfully execute the Task Order have not been documented Mitigation strategies have not been developed
Quality	The Project has developed a documented quality plan and is successfully implementing the plan The Project is complying with the requirements of the Modernization Partner program plan, appropriate to the work required by the Task Order	The Project has developed a documented quality plan, but significant problems are preventing successful implementation of the plan, or The project has complied with the quality requirements of the Modernization Partner program plan, appropriate to the work required by the Task Order, however, one or more significant program plan review issues have not been successfully resolved	The Project has not developed a documented quality plan or The project is not complying with the quality requirements of the Modernization Partner program plan appropriate to the work required by the Task Order
Communication/Change Management	Communication and change management strategies are in place and are being implemented	Minor communications issues exist Change management approach and strategy is not complete Information needs of some stakeholders are not being met in a timely manner	Communications issues and change management aspects have not been documented or defined Information needs of stakeholders are not being met
Human Resources	Human resource needs have been documented, approved, and the appropriate resources are available Project team has the individual and group skills needed for the particular phase All staffing requests have been filled or have been unfilled for a short time with no impact to schedule	Human resource needs have been documented Some responsibilities are blurred, minor resource gaps exist and/or team lacks some skills to perform successfully, or Unfilled staffing requests have been open for a period of time and have the potential to impact schedule	Human resource needs have not been documented Serious resource deficiencies exist, significant individual and team skills are lacking, or Staffing requests have remained open for an extended period of time and project schedule has been impacted
Commercial Off the Shelf Software (COTS)	Significant reuse of hardware, software, data, and/or process is being utilized A Reuse review was conducted during conceptual or detailed design and all reuse issues have been resolved	 Reuse of Architecture, Design, Hardware, Software, Data and/or Process was considered, used, and candidates were identified, however, none were selected, or A Reuse review was conducted during conceptual or detailed design and issues remain unresolved 	Reuse of Architecture, Design, Hardware, Software, Data and/or Process was not considered and candidates were neither evaluated nor used, or A Reuse review was not conducted during conceptual or detailed design

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